Please amend the paragraph beginning at page 10, line 1, as follows:

A trellis for use in accordance with the present invention can be conceptualized as a two-dimensional grid of N by K, where N is the number of raw data elements in the input set, and K is the number of stages that need to be considered for identifying the association of an object. A set of data elements comprising an object can be expressed in a trellis as a path of edges from the left side of the grid through some number of vertices. FIG. 4 shows an example of a trellis containing five data elements 401, 402, 403, 404 and 405 that have been segmented into two objects. One object comprises elements a (401), d (404) and e (405), while the other object comprises of b (402) and c (403). A trellis is sparse with respect to the number of paths through it if each vertex can only be a member of one object. In this manner, each row of vertices in the trellis, representing a single data element, will have at most one vertex with at most one incoming edge and one outgoing edge. This implies that each row will be a member in at most one path. With this restriction, any data element belongs to at most one object. Therefore, an object is represented by a path through the trellis.

A1